

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Anaemia among primary care patients with Type 2 Diabetes Mellitus (T2DM) and chronic kidney disease (CKD): a multi-centred cross-sectional study
<b>AUTHORS</b>	Idris, Iliza; Tohid, Hizlinda; Muhammad, Noor Azimah; A-Rashid, Mohd-Radzniwan; Mohd Ahad, Azainorsuzila; Ali, Norsiah; Sharifuddin, Naemah; Aris, Junita Harizon

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Iain Wittwer, TD, SRN Oxford Kidney Unit Oxford University Hospitals NHS Trust United Kingdom
<b>REVIEW RETURNED</b>	10-Sep-2018

<b>GENERAL COMMENTS</b>	<p>It appears that a proportion of the references used are older than 5 years. However, all the references given do have relevance to this study and do not detract from it..</p> <p>Question: When initial full blood count and renal function blood tests taken in Primary Healthcare settings show that a Patient has CKD and a low haemoglobin level, are further investigations ordered to show the cause of the anaemia?</p>
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<b>REVIEWER</b>	Periklis Dousdampanis Hemodialysis Unit Kyanos Stavros, Patras Greece
<b>REVIEW RETURNED</b>	26-Sep-2018

<b>GENERAL COMMENTS</b>	<p>This is a cross-sectional study regarding the prevalence of anemia in CKD patients with diabetes type II. The reviewer feels that the study design is weak and the scientific interest is limited. Moreover, there are several concerns that must be addressed by the authors.</p> <p>The authors reported that they were not able to identify the aetiology of anemia but the absence of this important information decreases the scientific interest of this study.</p> <p>Moreover, there are several missing data such as ferritin levels and TIBC.</p> <p>Patients with a recent history of hemorrhage should be excluded from the study.</p> <p>The number of the patients that have been on renin angiotensin system drugs should be reported.</p>
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<b>REVIEWER</b>	Dr Hugh Cairns King's College Hospital NHS Foundation Trust Denmark Hill London SE5 9RT United Kingdom
<b>REVIEW RETURNED</b>	04-Oct-2018

<b>GENERAL COMMENTS</b>	<p>This paper looks at the prevalence of anaemia in an outpatient setting in Malaysia in patients with type 2 diabetes and chronic kidney disease. It appears to be a carefully performed study with a relatively large number of patients. The findings are consistent with other published studies and show that patients with CKD and diabetes have a relatively high incidence of anaemia which correlates with degree of kidney disease and, less importantly, other factors such as age, gender and body mass index.</p> <p>The main benefit of this study, as the authors indicate in their discussion, will presumably be in health care systems with fewer resources where availability of tests to identify anaemia are limited. Information on which patients are more likely to be anaemic and therefore require investigations should enable resources to be used appropriately.</p> <p>There are a number of minor mistakes and grammatical errors which require correction.</p> <ol style="list-style-type: none"> <li>1. Results page 9, line 37 - the percentage of females is 43.8% not 53.8% (see Table 1) as stated</li> <li>2. Abstract, Conclusion page 3 line 3 - "Prevalence of anaemia ... was common" should be "Anaemia ... was common" as a Prevalence cannot be common.</li> <li>3. Methods, Study Participants page 7 line 31 should be "Every third patient ... was screened" rather than "were"</li> <li>4. Methods, Patient and Public Involvement page 8, line 22 should be "...their involvement was only during their clinic visit ..."</li> <li>5. Results page 9 line 48 should be "... with most of the anaemic patients having mild anaemia ..."</li> <li>6. Discussion, page 11, line 33 should be "Higher prevalence of anaemia was also found ..."</li> <li>7. Discussion page 12, line 55 should be "Stevens et al. (2010) ..."</li> <li>8. Discussion page 14 line 42 should be "there are several limitations." without the "exist"</li> <li>9. Discussion page 15 line 7 should be "... causes of anaemia are many and are not necessarily due to ..."</li> <li>10. Conclusion, page 15 line 22 again should be "Anaemia among patients ... was common" not "Prevalence of anaemia ....was common"</li> </ol>
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#### VERSION 1 – AUTHOR RESPONSE

Reviewer	COMMENTS	CHANGES MADE
<b>Reviewer 1</b>	When initial full blood count and renal function blood tests taken in Primary Healthcare settings show that a Patient has CKD and a low haemoglobin level, are further investigations ordered to show the cause of the anaemia?	The cause of the anaemia was not investigated due to financial constrain. It is the standard of practice at the public primary care settings in Malaysia that iron supplements are initially prescribed for asymptomatic patients and those without overt bleeding problems, constitutional or alarming symptoms. If there is no improvement with this therapy, they will then be subjected to further investigations. This standard of practice is explained in the introduction section. It is hope that the explanation could clarify the issues related to absence of further investigations to find the aetiology of the anaemia.
<b>Reviewer 2</b>	The authors reported	We agree that looking into the aetiology of the anaemia is

	that they were not able to identify the aetiology of anemia but the absence of this important information decreases the scientific interest of this study. Moreover, there are several missing data such as ferritin levels and TIBC.	important. However the focus of the study was to examine the prevalence of anaemia among patients with T2DM who had CKD, since screening for anaemia is not a part of the current standard of practice for such patients. This study highlights the importance of doing FBC for screening of anaemia in those patients, which is a simple and cheap testing.  With regards to absence of investigations for aetiology of anaemia such as ferritin and TIBC, an explanation about the standard of practice at the primary care clinics in Malaysia has been included in the introduction.
	Patients with a recent history of hemorrhage should be excluded from the study.	In this study, those with known anaemia secondary to any blood disorder were excluded. Furthermore, none of the participants had recent history of bleeding.
	The number of the patients that have been on renin angiotensin system drugs should be reported.	This information has been added in table 1 and mentioned in the result section: 72.2% of the patients were on either ACE-inhibitor or ARB. There was no significant difference in the presence of anaemia between those who received this treatment and those without.
<b>Reviewer 3</b>	There are a number of minor mistakes and grammatical errors which require correction.	Necessary changes were made according to the comments / suggestions.

#### VERSION 2 – REVIEW

<b>REVIEWER</b>	Iain Wittwer Oxford Kidney Unit Churchill Hospital Oxford University Hospitals NHS Trust UK
<b>REVIEW RETURNED</b>	13-Nov-2018

<b>GENERAL COMMENTS</b>	There are many older references included which were published prior to 2013. However, the references included appear to have relevance to the specific questions raised by the Authors. It is possible that there may not be the relevant papers available related to the specific study question. I do not feel that it detracts from the paper and believe that it should be published as a precursor to further studies into anaemia affecting T2DM patients with CKD
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<b>REVIEWER</b>	Dr Hugh Cairns King's College Hospital, London UK
<b>REVIEW RETURNED</b>	31-Oct-2018

<b>GENERAL COMMENTS</b>	The authors have addressed the concerns raised by the reviewers and made the suggested corrections. The limitations of this study, particularly with respect of incomplete investigation of the possible causes of anaemia in this population, are a consequence of the
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	resources of the health care system in which this study was performed. This reviewer agrees with the previous reviewer that the scientific interest of this study is relatively limited but it should be of greatest value in health care systems with fewer resources.
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